UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,139	04/03/2001	David J. Wetherall	41007.P005	1582

29127	7590	06/19/2006	EXAMINER

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	BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/825,139	WETHERALL ET AL.
	Examiner	Art Unit	
	Yasin M. Barqadle	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2006*.

2a)☐ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-13,17-25 and 32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-13,17-25 and 32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 17, 2006 has been entered.

Response to Amendment

2.   The amendment filed on April 17, 2006 has been fully considered but are moot in view of the new grounds of rejection.

- Claims 10,14-16 and 26-31 have been canceled.

- Claims 1-9,1-13,17-25 and 32 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

3.   Claims 1-3,10-11,17-19,22, and 32 are rejected under 35

U.S.C. 103(a) as being unpatentable over Primak et al USPN

(6598077) in view of Canion et al USPN. (20020108059).

As per claim 1, and 17, Primak teaches in a routing device

(dynamic route 10), a method of operation comprising:

    receiving a packet sent by a client device [a client's

request for dynamic content to the dynamic content router. The

dynamic content router then determines the appropriate

application server or application cluster for the client's

request based on number of factors, including but not limited to

the content availability, data server's capacity and session

persistence. Col. 3, lines 59 to col. 4, line 5);

determining if the packet is destined for a server of
interest by reference to a destination address of the packet
(When a session is established between the client and the
selected application server, the dynamic content router examines
the session communications to determine or extract a client
identifier (also referred to herein as a content identifier).
The dynamic content router utilizes the content identifier to
determine if the client is already logged onto one of the
application servers on the site col. 4, lines 16-26 and col. 6,
lines 9-34); if the packet is not destined for the server of
interest, routing the packet to its destination; if the packet
is determined to be destined for the server of interest, routing
the packet to its destination (col. 6, lines 35-43),
independently determining whether said packet is a part of a
conversation between the client device and the server of
interest based at least in part on persistent information
included in said packet [However, since the client request
includes session ID, the dynamic router 10 can extract the
session ID from the client request. The extracted session ID
then can be used by the dynamic router 10 to search the session
label 12 to find corresponding content label. That is, once the
session ID is found in the session table 12, the dynamic content
router can use the link to locate the content label associated

with this client and thereafter determine the dynamic content

based on the content label. (col. 6, lines 9-34); and

handling the packet based at least in part on the result of said

independent determination by forwarding the packet to if the

packet is deemed to be part of a conversation between the client

and the server (col. 6, lines 9-42).

Although Primak shows substantial features of the claimed

invention as explained above, he does not explicitly show

dropping the packet if the packet is deemed to be an undesirable

packets.

Nonetheless, this feature is well known in the art and

would have been an obvious modification of the system disclosed

by Primak, as evidenced by Canion et al USPN. (20020108059).

In analogous art, Canion et al whose invention is about a system

for detecting incoming data packets in a network, disclose a way

of determining whether to forward or drop a packet through a

network in response to a conversation identifier (received

packet information) to protect the network against undesirable

packets (packets with potential security violations) (¶ 0174-

0177 and ¶ 0183-0187). Giving the teaching of Canion et al, a

person of ordinary skill in the art would have readily

recognized the desirability and the advantage of modifying

Primak et al by employing the intrusion detection system of

Canion et al in order to identify packets with potential

security violations for the advantage of protecting the network

against network security attacks such as denial of service

attacks, sync attacks, ping attacks and unauthorized attacks (¶

0171 and ¶ 0183-0187).

As per claim 2 and 18, Primark et al teach the invention,

wherein said independent determination comprises independently

verifying a conversation identifier included in said packet

based at least in part on other information included (col. 4,

lines 16-26 and col. 6, lines 9-34).

As per claim 3 and 19, Primark et al teach the invention,

wherein said independent verification comprises independently

regenerating the conversation identifier using at least said

other information included in said packet; and

    comparing the independently re-generated conversation

identifier with the included conversation identifier [col. 9,

lines 20-46).

As per claim 11 and 22, Primak et al teaches a method of

operation comprising:

        at least one processor (10,20, 30, fig. 2);

generating an independently verifiable conversation

identifier for a packet destined for a client device, using at

least persistent information that will be included in said

packet [col. 9, lines 20-46);

including the independently verifiable conversation

identifier with said packet for use by the client device to

include in a subsequent packet sent by the client device

destined for the server [col. 4, lines 16-26 and col. 6, lines

9-34]; and

transmitting said independently verifiable conversation

identifier included packet to said client device (col. 4, lines

16-26 and col. 6, lines 9-34);

Primark et al further teach a summation unit to insert the

independently verifiable conversation identifier with a packet

[col.7, lines 63 to col. 8, lines 9 and col. 11, lines 41-56];

determining if the packet is destined for a server of interest

by reference to a destination address of the packet (When a

session is established between the client and the selected

application server, the dynamic content router examines the

session communications to determine or extract a client

identifier (also referred to herein as a content identifier).

The dynamic content router utilizes the content identifier to

determine if the client is already logged onto one of the

application servers on the site (col. 4, lines 16-26 and col. 6,

lines 9-34); if the packet is not destined for the server of

interest, routing the packet to its destination; if the packet

is determined to be destined for the server of interest, routing

the packet to its destination (col. 6, lines 35-43),

independently determining whether said packet is a part of a

conversation between the client device and the server of

interest based at least in part on persistent information

included in said packet [However, since the client request

includes session ID, the dynamic router 10 can extract the

session ID from the client request. The extracted session ID

then can be used by the dynamic router 10 to search the session

table 12 to find corresponding content label. That is, once the

session ID is found in the session table 12, the dynamic content

router can use the link to locate the content label associated

with this client and thereafter determine the dynamic content

based on the content label (col. 6, lines 9-34).

Although Primak shows substantial features of the claimed

invention as explained above, he does not explicitly show

dropping the packet if the packet is deemed to be an undesirable

packets.

Nonetheless, this feature is well known in the art and
would have been an obvious modification of the system disclosed
by Primak, as evidenced by Canion et al USPN. (20020108059).
In analogous art, Canion et al whose invention is about a system
for detecting incoming data packets in a network, disclose a way
of determining whether to forward or drop a packet through a
network in response to a conversation identifier (received
packet information) to protect the network against undesirable
packets (packets with potential security violations) (¶ 0174-
0177 and ¶ 0183-0187). Giving the teaching of Canion et al, a
person of ordinary skill in the art would have readily
recognized the desirability and the advantage of modifying
Primak et al by employing the intrusion detection system of
Canion et al in order to identify packets with potential
security violations for the advantage of protecting the network
against network security attacks such as denial of service
attacks, sync attacks, ping attacks and unauthorized attacks (¶
0171 and ¶ 0183-0187).

As per claim 32, Canion et al as modified teach the invention,
where the function unit (processing unit) drops packets that are
not part of the conversation identifier to protect the server

against receipt of undesirable packets (¶ 0174-0177 and ¶ 0183-0187).

4.   Claims 4-9, 12-13 and 21, 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Primak et al USPN (6598077) in view of Canion et al USPN. (20020108059) and further in view of Bull et al USPN (6799270) and further

As per claims 4 and 12, although Primak et al show substantial features of the claimed invention as explained in claim 1 and 11 above, they do not explicitly show a nonce.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Primak et al, as evidenced by Bull et al USPN. (16799270). In analogous art, Bull et al whose invention is about a system for securely distributing session keys over a network of a chain of nodes including client nodes (14), server nodes (18) and intermediate nodes (18), disclose a bit string of data that includes a nonce (randomly generated value that is concatenated to the end of a message) that is used for identification and verification purpose [Col. 6, lines 39-50 and col. 7, lines 21-60]. Giving the teaching of Bull et al, a person of ordinary skill in the art would have readily recognized the desirability

and the advantage of modifying Primak et al by employing the

system of Bull et in order to generate a unique value that

identifies a client session and to verify the integrity of the

response coming from the server [Col. 6, lines 39-50 and col.

7, lines 29-35].

    Bull et al further teaches said re-generating the nonce

using a deterministic function with a sequence number of the

nonce and a plurality of persistent field values extracted from

the packet, and a pre-provided secret value as inputs to the

deterministic function [Col. 5, lines 9-34 and Col. 6, lines 7-

65].

As per claims 5, 13 and 24, Primak et al teach the invention,

wherein said plurality of persistent field values comprise one

or more of a source address, a destination address and a port

number [client session (packet) with web server inherently

includes a source address, a destination address and a port

number].

As per claim 6, Bull et al further teach the invention as

explained in claim 4 above, wherein the method further comprises

at least one of receiving into said routing device said secret

value, and equipping/configuring said routing device with said

deterministic function [Col. 5, lines 9-34 and Col. 6, lines 7-65].

As per claim 7 and 25, Bull et al further teaches the invention, wherein said independent generation is performed using a selected one of a message authentication code function and an universal hash function [col. 5, lines 39 to Col. 6, lines 7-47].

As per claim 8, Primark et al as modified teach the invention, wherein the method further comprises recording a time of first observation for the nonce if the nonce is a newly observed nonce [col. 9, lines 20-67].

As per claim 9, Primark et al as modified teach the invention, wherein the method further comprises determining if time has elapsed more than a predetermined threshold since a time of first observation was recorded for the nonce, if the extracted nonce and the independently generated nonce are deemed to be the same [col. 9, lines 20-67].

As per claims 20-21 and 23, these claims include similar limitations as claim 4 and 12 above. Therefore, they are rejected with the same rationale.

Conclusion

5. The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained form the Patent Application Information Retrieval (PAIR) system. Status information for published applications may

be obtained from either private PAIR or public PAIR system.

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through private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have

questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

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